

REMARKS

Reconsideration and withdrawal of the rejections set forth in the above-mentioned Office Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-4 and 6-8 are now pending in this application, with Claims 1 and 8 being independent. Claim 5 has been cancelled without prejudice or disclaimer. Claims 1 and 8 have been amended herein.

Claims 1, 3, 4, and 6-8 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,341,843 (Takemura et al.) in view of U.S. Patent No. 6,009,245 (Kato et al.). Claim 2 was rejected under § 103 over Takemura et al. and Kato et al. and in further view of U.S. Patent No. 6,705,694 (Barbour et al.). Claim 5 was rejected under § 103 over Takemura et al. and Kato et al. and in further view of U.S. Patent No. 5,838,888 (Oda).

Applicants respectfully traverse the rejections. Accordingly, Applicants submit that the invention recited in the independent claims is patentably defined over the cited references for at least the following reasons.

Applicant's invention can flexibly utilize a buffer memory for a printhead, attached to a carriage, selected from a different plural types of printheads since a read address for the buffer memory is calculated in accordance with a number of concurrently drivable printing elements in distributed driving and a number of a plurality of printing elements of the attached printhead. Accordingly, Applicants' invention can use various types of printheads, each being driven according to the number of concurrently drivable printing elements and the number of the plurality of printing elements. Therefore, many available types of printheads can be used with Applicants' invention.

As discussed previously, Takemura et al. is directed to an inkjet printer including a printer buffer 139, and a printhead that stores printhead identification information as well as printhead alignment and optical density information, information and parameters relating to a waste ink amount, printhead change count, printhead cleaning times, printhead type, etc., in an EPROM 132. Applicants submit that in Takemura et al. the number of currently drivable printing elements is a predefined fixed value. In other words, Takemura et al. merely teaches a printhead driving control based on a fixed number of concurrently drivable printing elements. Takemura et al. does not disclose or suggest anything regarding a number of concurrently drivable printing elements according to distributed driving.

Further, Applicants submit that Takemura et al. assumes that an available printhead for the apparatus must be driven according to a fixed number of concurrently drivable printing elements, and it cannot accept various types of printheads which differ from each other in view of the number of printing elements and the number of concurrent drivable printing elements. Therefore, for Takemura et al. there is only one available type of printhead.

Takemura et al. does not disclose or suggest at least storing information on both a number of concurrently drivable printing elements according to distributed driving for a printhead and a number of a plurality of printing elements in a head parameter unit or calculating a read address in accordance with the number of concurrently drivable printing elements in the distributed driving and the number of the plurality of printing elements in reading out print data stored in a buffer memory, as is recited in independent Claims 1 and 8.

Thus, Takemura et al. fails to disclose or suggest important features of the present invention recited in the independent claims.

Kato et al. merely discloses a technique for storing print data in a buffer, based on the number of nozzle arrays and the number of nozzles. (See col. 11, lines 31-42). Oda discloses a circuit arrangement in which two nozzles form a group, and print data is transferred to the group. (See Figs. 10 and 12). Barbour et al. disclose a printhead with a memory device that may store various printhead specific data. Neither Kato et al., Oda, nor Barbour et al. presume the use of various types of printheads, each being driven according to a number of printing elements and a number of concurrently drivable printing elements. None of the citations are believed to remedy the deficiencies of Takemura et al. noted above with respect to the independent claims.

Thus, independent Claims 1 and 8 are patentable over the citations of record. Reconsideration and withdrawal of the § 103 rejections are respectfully requested.

For the foregoing reasons, Applicants respectfully submit that the present invention is patentably defined by independent Claims 1 and 8. Dependent Claims 2-4, 6 and 7 are also allowable, in their own right, for defining features of the present invention in addition to those recited in independent Claim 1. Individual consideration of the dependent claims is requested.

This Amendment After Final Rejection is an earnest attempt to advance prosecution and reduce the number of issues, and is believed to clearly place this application in condition for allowance. This Amendment was not earlier presented because Applicants earnestly believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of this Amendment under 37 CFR 1.116 is respectfully requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action, and an early Notice of Allowability are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by

telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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